Page 1 and 2

- The bullets on page 1 don't do it for me. There are too many and they aren't very compelling. Thinking of the Legislature, the original bullets simply don't give me reason to consider the body of work in the Water Plan. Some of the bullets actually read as being impediments to its implementation.
- The opening paragraph references a "forward-looking planning framework." This strikes me as false for a couple of reasons: Regional planning is already practiced in many areas; I detect very little in the overall report so far that suggests this issue of the Water Plan is a planning framework that's usable at the local level. It does contain elements that could direct the state's future planning efforts (i.e., filling data gaps). Why not drop the "planning framework" language in favor of just calling it (accurately) a "strategic water plan"?
- Many of the goals, objectives, findings and recommended actions are too general to be called "specific."
- The second bullet includes "water infrastructure" as a public trust asset. When I think of "infrastructure" I think of canals and pumping plants. If the intent of this reference is the natural conveyance systems (streams and rivers) then let's say so. We may be headed for trouble if we suggest that the state's canals and pumping plants are public trust assets.
- The third bullet is troublesome because it suggests to me that water management does not currently consider the public trust and now DWR has finally seen the light. Considering the SWRCB is soon to conduct its triennial review (that's every three years) of the water quality control plan for the estuary, I'd argue that the public trust may be over considered.
- I continue to strongly dislike the "recommended principles" aspect of the fourth bullet. My previous comments, dated December 30, 2003 explains why so I won't repeat my concerns in full here. I simply do not understand what is broken in the state's process for providing assistance that this bullet is trying to fix. Hence it appears to me to be a gratuitous bullet. This is a serious issue to me and I would like to hear from DWR staff and management what their intentions are for this bullet.
- The last bullet references "serious" data gaps. This makes the problem sound worse than it is. There is no reason to load the text up with subjective adjectives.
- Again, there are too many bullets on page 2. Some could be combined.
- The bullets on page 2 don't harmonize well with the bullets on page 1. There is no strong linkage between the two sets of bullets.
- The seventh bullet on page 2 repeats the "principles for providing State assistance" concept that is such a serious issue for me.
- The Key Findings are pretty weak. They are either obvious factoids or aren't compelling conclusions. Imagine DWR making a briefing on the Water Plan and saying, "After looking at all the data and evaluating our options for meeting future needs, we find that the state's economy is the fifth largest in the world." Eliminate the obvious and the factoids, and rewrite the findings so they are dependent on the data.
- The Key Recommended Actions are likewise pretty weak, and there are too many of them. The language in these needs to be pared down to their essence.
- Some of the Key Recommended Actions don't seem very "key" to me. Specifically, recommendation 5 should be done now. If it's not, is it really a Water Plan issue? Recommendation 7 seems unnecessary. Couldn't this be done administratively? If so, why make it a recommendation? Also, it seems unfair to me to specifically mention a need to expand Native Americans' role. No suggestion is made to expand the role of other cultures or communities. Recommendation 8 seems likewise unnecessary and infers that the State does not now consider environmental justice. Similar concerns about recommendation 9.

Following is a rewritten introduction that considers the above comments.

Introduction

[THIS SECTION WILL INCLUDE A FEW OPENING PARAGRAPHS WITH SIZZLE – THE GOAL WILL BE TO CAPTURE THE READER'S ATTENTION AND CREATE A SENSE OF URGENCY AND NEED FOR ACTION.]

This update of the California Water Plan provides decision-makers, resource managers, water suppliers and all water users a state-of-the-art strategic water plan with goals, objectives, findings and a robust set of recommended actions. This strategic water plan:

- Presents actions that are durable and achievable and that will, if implemented, assure an adequate, reliable and sustainable supply of water of suitable quality for all beneficial uses to the year 2030.
- Articulates the costs, benefits, tradeoffs and implementation difficulties of the recommended actions so that decision-makers and resource managers can make informed decisions on the mix of actions best suited to their needs.
- Articulates the risks and consequences of failure to implement the recommended actions, especially during extreme hydrologic events.
- Assists and supports local and regional planners to implement diverse management strategies in their integrated resource plans, including coordination of land use planning with water planning and management.
- Outlines a process for addressing gaps in data and analytical tools, so that future Water Plan updates can be more precise.

Organized in four volumes, this Plan includes the following information in support of actions and recommendations presented in the Water Plan Implementation and Investment Guide, summarized in this chapter and described in detail in Chapter 6 (Implementation and Funding): **[NOTE: it has been suggested that we include a fifth volume for the 25 Resource Management Strategy narratives, rather than an Appendix to Volume 1.]**

The California Water Plan is the State's strategic plan for managing and developing water resources statewide. The Water Plan is a document that DWR periodically updates in accordance with the Water Code. The California Water Plan was first published by DWR as Bulletin 3 in 1957. Since then, DWR has prepared seven Water Plan Updates, published as the Bulletin 160 series. The Water Code now requires DWR to update the California Water Plan every five years. DWR published the last Update in 1998.

- The current condition of the State's water system, including estimates of current statewide and regional water supplies and uses, and how water is managed, allocated, used and regulated in California (Chapter 2).
- Significant uncertainties and risks that should be considered in water planning, including extreme hydrologic events such as multi-year droughts; several plausible scenarios for estimating future water supplies and uses; and a work plan for filling data gaps and developing analytical tools for subsequent phases and updates of the Water Plan (Chapter 3).

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Deleted: <#>Recognize and manage water as aRecognize and manage water as apublic trust asset.¶ <#>Provide State assistance to local water planners, agencies and governments, using recommended principles, to initiate and expand regional and inter-regional integrated resource planning.¶ Encourage

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Deleted: Statewide water challenges, programs, resources, and infrastructure (Chapter 2).¶ <#>How water is managed, allocated, used, and regulated in California (Chapter 2).¶ Estimates of current statewide and regional water supplies and uses (Chapter 2 and Volume 2).

- Practices and strategies for improving regional integrated resource planning and management (Chapter 4), including 25 resource management strategies included in the Implementation and Investment Guide (Chapter 4 and Volume 1 Appendix).
- The State's role, responsibilities and commitments in fostering improved local and regional planning and management (Chapter 5).
- Reports on each of the 10 hydrologic regions, mountain counties, Sacramento-San Joaquin Delta, and southern California area (Volume 2 Regional Reports).
- Supplemental reference information (Volume 3 Reference Guide).
- Documentation on data, tools and methods (Volume 4 Technical Guide).

This Water Plan Update is based on the best available data and information. It also documents gaps in sufficiency of data and analytical tools. Prepared in a phased work plan, the Department of Water Resources will further quantify and improve estimates for future water supplies and uses presented in this report over the next two years. As a strategic plan, the findings, recommendations and the action plan presented will be periodically reviewed and revised; DWR will publish five other Water Plan Updates during this Update's planning horizon to 2030.

Throughout California stakeholders are working together in their regions and watersheds to develop programs that address multiple benefits. More comprehensive planning is considering the role of local and regional water supplies as part of the mix of resources to help meet the larger statewide supply objectives. Today's responses to California's water challenges include a broader range of water management activities than historically thought to be available.

This Water Plan Update includes an Implementation and Investment Guide with 25 diverse resource management strategies that provide local, regional and statewide planners considerable investment choices and capacity, but they will require significant resources for implementation, including public funds. The goal of this Water Plan is develop sufficient water supplies to meet the needs identified herein.

Key Findings

1. Currently, California has sufficient resources to meet most of its water demands with its present population. The State's water system is severely stressed during multiyear droughts.
2. Unless California continues to invest significantly in a diverse and balanced portfolio of water management strategies, our economy, environment and quality of life will decline. Groundwater overdraft will worsen, water quality will decline, aquatic ecosystems will be further stressed, and California's world-class economy and agricultural industry will suffer.
3. Presently, California is ill-prepared for extreme hydrologic conditions such as multi-year droughts. Future droughts are certain; only the durations and intensities are unknown. Experience with past droughts, most notably in 1976-1977 and 1987-

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1992, demonstrates the economic and environmental impacts of critical water shortages throughout California.

4. Population increase and water for environmental restoration are fueling the state's need for additional water resources. California's population increased by about 6 million people since the last drought of 1987-1992 ended. The current population of over 36 million is projected to increase by another 17 million people to 53 million by year 2030.

5. The State contributes over half of the nation's fruit, nut, and vegetable production, providing food and fiber crop products to Californians, other states and countries. These agricultural lands are a national treasure that must be sustained.

6. California has experienced aquatic and riparian habitat degradation and freshwater biodiversity declines throughout the state. While the California Bay-Delta Program has done much to reverse the declines, more needs to be done.

7. California's usable water supplies are shrinking because of natural and human-made contaminants and unsustainable groundwater overdraft.

8. Global climate change could result in significant reductions to the Sierra snowpack. This has major implications for the State's water supply, flood management and ecosystem health.

9. Existing data and analytical tools are not capable of sufficiently answering all relevant questions. The need for more accurate information is critical for gaining greater benefits from limited resources and reducing controversy and conflicts in adapting our water system to new demands.

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10. Between 3.5 and 6 million acre-feet will be needed in average water years to sustain economic growth and California's agricultural industry, to eliminate groundwater overdraft, and to meet environmental water objectives. This estimated range assumes:

    a. 2 million - 3 million acre-feet for a projected population growth of 17 million more Californians; **[NOTE: Staff is working on this range.]**

    b. 1 million - 2 million acre-feet for eliminating groundwater overdraft statewide (from California's Groundwater, Bulletin 118-03);

    c. 0.5 million – 1.0 million acre-feet for meeting environmental water objectives; and

    d. Agricultural water use stabilizes at about year 2000 level, assuming stabilizing irrigated land acreage and continued historical trend in agricultural productivity and efficiency improvements (about 50 percent more crop production per acre-foot in the past 25 years). Other factors such as conversion of farmland to urban uses and international trade competition are predicted to limit increases in irrigated acreage. **[NOTE: Staff is working on this.]**

11. To realize the full potential outlined in the Implementation and Investment Guide, significant State, federal and local investments, additional public and private partnerships, and better data and analytical tools will be needed by 2030. this Water Plan estimates a total investment of $75 million dollars will be needed by 2030. If the State provided one-third of this via public funding, it would need to invest about $1 billion annually over the next 25 years.

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Key Recommended Actions

1. Implement the California Bay-Delta Program Stage 1 actions in the Record of Decision as well as the recommendations of the Water Desalination Task Force, the State Recycling Task Force, the Stormwater Quality Task Force, the Floodplain Management Task Force, and California's Groundwater (Bulletin 118-03).
2. DWR should revise its Strategic Business Plan to more effectively provide regions with incentives and assistance to help them to plan and implement multi-objective, diversified water portfolios, preferably on a watershed basis.
3. Complete investigating the California Bay-Delta Program's five surface storage proposals and pursue implementing the storage projects that meet the Bay-Delta Program principles for technical, environmental and economic feasibility.
4. Work with researchers to better monitor and predict the effects of global climate change on California's water systems and the environment by developing alternative climate change hydrologies to test their potential effects.
5. Encourage cities, counties and LAFCO's to include a Water Element in their next General Plan update to improve coordination of land use planning and water planning and management. The State should provide regional and local planners technical, administrative and financial assistance in implementing relevant legislation such as SB 221 and 610 and related State policies.
6. DWR should develop and maintain the California Water Plan Information Exchange (Water PIE), a data management system to assist regional and local agencies and governments prepare their integrated resource and watershed plans.
7. DWR should implement the work plan to improve the data and analytical tools for subsequent phases and updates of the Water Plan and regional planning efforts.
8. Future updates to the California Water Plan should continue to be developed with the active input of a diverse Advisory Committee.

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7. This can lead to expensive treatment requirements and render some water supplies unsuitable for use.

8.The continued unsustainable overdraft of some of California's groundwater basins further reduces available water supply and, in some areas, water quality.

9.Many Native Americans have unmet water needs. In the North Coast region thousands of Native Americans do not have piped water to their homes. A large part of the tribal water needs are for instream flows and other water bodies that support environmental and cultural needs for fishing, hunting, and trapping.

10.The State has a responsibility to ensure that environmental justice is afforded to all Californians, namely, the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation and enforcement of environmental laws and policies.

Public agencies have a responsibility to take the public trust into account in the planning and allocation of water resources, and to protect public trust uses, whenever feasible.

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California hydrology will not be the same as we have experienced in the past century. While many uncertainties remain, primarily on the degree and timing of change to be expected, it is

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14.Given the current patterns of water use, Given the current patterns of water use, California has sufficient resources to meet many, but not all, of its water demands with its present population. In general,

a.Except in multiyear droughts, many urban areas have sufficient supplies for existing populations. California's urban areas use about the same amount of water today as they did in the mid-1990's. They have accommodated a population growth of over 3.5 million Californians largely through increased water use efficiency and recycling.

b.In average years, most but not all agricultural demands are met.

c.Many rural residents on small water systems or wells experience limited water supply during droughts.

d.Over the past few decades, we have dedicated more water for restoring impacted ecosystems, but some requirements are not always met.

e.California continues to rely on an unsustainable overdraft of some of its groundwater basins.

f.Water quality is generally good but many areas face specific water quality problems.

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16.Throughout California stakeholders are beginning to workbeginning to work together in their regions and watersheds to develop programs that address multiple benefits. More comprehensive planning is beginning to consider all water demands and beginning to consider all water demands and considering the role of local and regional water supplies as part of the mix of resources to help meet the larger statewide supply objectives. Today's responses to California's water challenges include a broader range of water management activities than historically thought to be available.

17.This Water Plan Update includes an Implementation and Investment Guide with 25 diverse resource management strategies that provide local, regional and statewide planners considerable investment choices and capacity, but they will require significant resources for implementation, including public funds. In addition to water management strategies like water use efficiency, recycling, storage and conveyance, this Plan includes strategies for recovering groundwater overdraft, improving water quality, watershed management, ecosystem restoration, urban and agricultural lands management, urban runoff and floodplain management, recreation; as well as economic incentives. In addition to water management strategies like water use efficiency, recycling, storage and conveyance, this Plan includes strategies for recovering groundwater overdraft, improving water quality, watershed management, ecosystem restoration, urban and agricultural lands management, urban runoff and floodplain management, recreation; as well as economic incentives.

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5.The State's plan and infrastructure investments should be consistent with the three legal requirements of Government Code Section 65042: promote infill development and equity; protect environmental and agricultural resources; and encourage efficient development patterns.

The State should work

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This includes development of alternative climate change hydrologies to test their effects. The results should be considered in water management decision making.

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7.The State should expand the role of California's Native Americans at all stages of the state's water planning process, provide assistance as needed for their participation, and with federal government cooperation, assist in recognizing and accommodating tribal needs.

8.The State should ensure that environmental justice is afforded to all Californians, particularly disadvantaged citizens and vulnerable communities that have experienced disproportionate health and environmental impacts.

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Public agencies should take the public trust into account in the planning and allocation of water resources, and to protect public trust uses, whenever feasible. The State should exercise continued supervision over its navigable waters and the lands beneath them to protect the public's rights to commerce, navigation, fisheries, recreation, ecological preservation and related beneficial uses.

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10.As soon as practicable, a Governor's Strategic Water Team should be established to strengthen communication, coordination and cooperation among State departments dealing with water, and to ensure that their strategic planning and implementation are consistent with the Governor's water policies.

Cities